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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/081,502

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Kimberlee A. Kemble

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EXAMINER

SERROU, ABDELALI

ART UNIT

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2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/081,502	Applicant(s) KEMBLE ET AL.	
	Examiner Abdelali Serrou	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19,20,22-25,27-30,32-35,37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19,20,22-25,27-30,32-35,37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the office action mailed on 12/27/07, applicant filed an amendment on 3/27/08, amending claims 19, 20, 22, 24-25, 27, 29, 30, 32, 34, 35, and 37. The pending claims are 19-20, 22-25, 27-30, 32-35, and 37-38.

Response to Arguments

2. Applicant's arguments with respect to claims 19, 24, 29, and 34 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that McAllister does not teach excluding data fields of said retrieved database entries having duplicate data items, stating that McAllister's system prompts the user to supply additional information to select from candidate records. The examiner points out that column 2, lines 52-65 of McAllister teaches, when a data field, such as a name, is duplicated and is not good enough to solve the disambiguation conflict, the system excludes the data field "name" and examine other data fields such as the addresses of the listings.

Applicant argues that McAllister does not teach selecting one disambiguation data field when more than one disambiguation data field is identified in the identifying step, stating that McAllister describes that the location field is provided together with the name field to the caller. However, the location field is the only unique and pronounceable field in the table shown in col. 3, lines 10-20. The examiner points out that McAllister, in column. 3, teaches selecting one disambiguation field (location field, col. 3, lines 30-34) to distinguish between the callers, while there exist another disambiguation field (Department field, col. 3, lines 40-41) during the identifying step of the caller.

Applicant argues that McAllister does not teach excluding any data fields having at least one data item that is unpronounceable. The examiner refers to col. 4, lines 22-23, wherein

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unlikely pronunciations are eliminated. Furthermore, determining whether data is pronounceable or not, and ignoring or excluding the unpronounceable one is well known in the art by using multiple techniques i.e. dictionary look up, and as evidenced by applicant, see specification, page 6, lines 11-15 *“The search results further can be processed to determine whether the data items within the data fields accurately can be pronounced through a speech interface. Those skilled in the art will recognize that this determination can be made using any of a variety of techniques such as using a dictionary to lookup data items or analyzing the patterns of vowels and consonants of the data items.”*

Applicant argues that Gilai does not teach excluding data fields having data items that exceed a predetermined maximum length. The examiner respectfully disagrees and refers to column 12, lines 13-46, wherein the database accessing system of Gilai enters, onto a list, only strings with a predetermined length entered by the user, and obviously ignores the rest. Furthermore, it discards strings with lowest probability which corresponds to strings with higher length. Therefore, Gilai does teach excluding data fields having data items that exceed a predetermined maximum length.

Therefore, the prior art reference McAllister and Gilai do read on the claims language. Hence, the rejection of claims 19, 24, 29, and 34 stands valid.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **19-20, 22-25, 27-30, 32-35, and 37-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over McAlister et al., Patent No. 6,421,672 in view of Gilai et al., U.S. Patent No. 6,256,630.

As per claims 19, 24, 29, and 34, McAllister et al. teach a method for disambiguating search results (see abstract) comprising:

retrieving multiple database entries (multiple listings, col. 2, line 42-51) responsive to a database search, wherein said retrieved database entries include a plurality of common data fields (primary key and secondary data fields, col. 2, lines 53 and 60; and col. 5, line 6);

processing common data fields of said retrieved database entries according to predetermined disambiguation criteria (col. 7, lines 46-63, and col. 8, lines 44-65, wherein additional processing and database are provided to resolve the ambiguity of the listings, according to predetermined disambiguation criteria, and distinguish it between other listings, when the listings disambiguation that lead to an accurate pronunciation is not configured);

excluding data fields of said retrieved database entries having duplicate data items (col. 2, lines 52-65, wherein when duplicated data field, such as a name, is excluded and other data fields such as the addresses of the listings are examined);

excluding any data fields having at least one data item that is unpronounceable (col. 4, lines 23-25, “. . . eliminate unlikely pronunciations”);

based upon said processing, identifying from among said plurality of common data fields at least one disambiguation data field that satisfies said predetermined disambiguation criteria (col. 3, lines 34-54, wherein the system uses hierarchical search pattern to identify distinguishing

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information, and determines that the locations, along with the names, of the identified listings is more suitable to identify the right candidate);

selecting one disambiguation data field based on a predetermined selection criterion when more than one disambiguation data field is identified in the identifying step (col. 3, lines 34-54, wherein one disambiguation field (location) is selected when there exist another disambiguation field (Department) in order to distinguish between different callers); and

presenting, through a speech interface (speech signal) , data items corresponding to said selected disambiguation data field for each said retrieved database entry (see col. 3, lines 47-54), wherein said speech interface is used in conjunction with a system in which said database search is performed (see Fig. 1, field 34a and col. 7, lines 63-67), and wherein said speech interface provides users of said system with an interface for searching for information contained within a database in which said database search was conducted and with an interface for audibly receiving results of said database search (see col. 9, lines 37-67).

McAllister does not explicitly teach excluding data fields having data items that exceed a predetermined maximum length.

However, this feature is well known in the art as evidenced by Gilai et al. which disclose a database accessing system and method comprising the step of excluding data fields having data items that exceed a predetermined length (col. 12, lines 13-46, wherein the database accessing system of Gilai enters, onto a list, only strings with a predetermined length entered by the user, and obviously ignores the rest. Furthermore, it discards strings with lowest probability which corresponds to strings with higher length).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to use Gilai's feature and apply it to the disambiguation system of McAllister, in order to exclude data field that exceed a predetermined length. Gilai suggests that would improve the accuracy and efficiency of the retrieval process by providing the best selected candidate entries (Gilai, col. 16, pages 14-23).

As per claims 20, 25, 30, and 35, McAllister in view of Gilai teach all the limitations of claims 19, 24, 29, and 34, upon which claims 20, 25, 30, and 35 depend. Furthermore, McAllister teaches wherein data item pronounceability is determined using at least one of a determination technique based upon a failed dictionary lookup where the dictionary contains pronounceable data items and a determination technique that analyzes patterns of consonant-vowel combinations occurring within the data items (necessarily disclosed within McAllister's system, to synthesize speech, col. 4, line 61 – col. 5, line3).

As per claims 28 and 38, McAllister in view of Gilai teach all the limitations of claims 24, and 34, upon which claims 28 and 38 depend. Furthermore, Mc Allister teaches receiving a user input specifying a data item associated with said selected disambiguation data field to disambiguate said retrieved database entries (col. 3, lines 55-65).

As per claims 22, 27, 32, and 37, McAllister in view of Gilai disclose all the limitations of claims 19, 24, 29, and 34 upon which claims 22, 27, 32, and 37 depend. McAllister does not explicitly teach wherein the maximum length is determined from an empirical analysis of a relative ease with which users recall audibly presented speech items. Gilai in the same field of endeavor teaches wherein the maximum length is determined from an empirical analysis of a relative ease with which users recall audibly presented speech items (col. 12, lines 13-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the similarity method of Gilai (which meets the claimed limitation of “empirical analysis of relative ease” to improve the accuracy and efficiency of the retrieval process by providing the best selected candidate entries (Gilai, col. 16, pages 14-23).

As per claims 23 and 33, McAllister in view of Gilai disclose all the limitations of claims 19 and 29, upon which claims 23 and 33 depend. McAllister does not explicitly teach selecting the disambiguation data field having data items with a smallest average length. However, this feature is well known in the art as evidenced by Gilai’s which discloses a database accessing system and method comprising the step of determining a data from said plurality of common data fields having data item with a smallest average length, (see col. 12, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the determining step of Gilai et al. in the processing step of McAllister et al., because this would improve the accuracy and efficiency of the data retrieval process by providing the best selected candidate entries (Gilai, col. 16, pages 14-23).

Conclusion

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Abdelali Serrou/
Examiner, Art Unit 2626
7/2/08

/David R Hudspeth/
Supervisory Patent Examiner, Art Unit 2626

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